

VENETIE

Health Clinic



Alaska Rural Primary Care Facility

Code and Condition Survey Report

July 23, 2001



I. EXECUTIVE SUMMARY

Overview

The Venetie clinic building was constructed in 1988. It is constructed with vertically oriented 10 to 12-inch diameter logs serving as the exterior walls are exposed on both the interior and exterior. The lack of adequate space for storage, medical supplies, ADA accessible facilities and a trauma room prevent the staff from providing the community an appropriate level of daily and emergency health care.

Renovation and Addition

The existing clinic is 1250 s.f. and would require an addition of 750 s.f. to meet the 2000 s.f. minimum area recommended for a medium clinic by the Alaska Rural Primary Care Facility study. Approximately half of the existing clinic would need to be remodeled as part of a renovation/addition project. The building would require extensive thermal upgrades and foundation improvements if it were added to. The cost of required renovations and code upgrades, combined with the cost of a new addition equal 123% of the cost of a new clinic.

New Clinic

Because the cost of renovation and addition is more than 75% of the cost of new construction, a new clinic of at least 2000 s.f. should be built to replace the existing clinic. The community is anticipating a new clinic with access to a recently installed community sewer system. The new site is on the opposite side of the runway, on higher ground than the existing building. The community of Venetie is growing in two areas, however, the center of new structures and facilities is moving to the higher ground. The proposed site is near the water treatment plant/washeteria, the school, the Episcopal Church, and other community support buildings.

II. GENERAL INFORMATION

A. The Purpose of the Report

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility (ARPCF) assessment, planning, design, and construction. The purpose of the Code and Condition Survey Report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need among the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information gathered will be tabulated and analyzed according to a set of fixed criteria that will yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most practical and cost effective means to bring the clinics up to a uniform standard of program and construction quality. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2.

B. The Assessment Team

The survey was conducted on June 8, 2001 by John Crittenden, AIA, Architects Alaska and Ralph DeStefano, PE, RSA Engineering. Don Antrobus, ANTHC Project Manager accompanied the team on this inspection. Don made introductions, reviewed alternative site locations, and conducted meetings with the users. Team members who assisted in the preparation of the report included Stephen Schwicht and Ian VanBlankenstein of NANA/DOWL, project managers for the survey team, and Jay Lavoie of Estimations, Inc.

C. The Site Investigation

The format adopted is similar to the “Deep Look”, a facility investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. This written report includes a floor plan of the clinic and a site plan indicating the existing clinic site. Additional information gathered during the site investigation that is referred to in the report, which includes sketches of building construction details, a building condition checklist, and proposed plans for village utility upgrades, are not included with this report. This information is available for viewing at ANTHC’s Anchorage offices and will be held for reference.

III. CLINIC INSPECTION SUMMARY

A. Community Information

The community of Venetie has a current population of 202 as published in the 2000 U.S. Census. It is located 45 air miles northwest of Fort Yukon in the Fairbanks Recording District. Refer to the attached Alaska Community Database prepared by the Alaska Department of Community and Economic Development in Appendix C for additional information on the community.

B. General Clinic Information

The Venetie Clinic was constructed in 1988 and is similar to the clinic in Arctic Village. This building is about 1250 s.f. and is constructed using vertical logs on a concrete grade beam. This unusual construction technique has been applied to many other buildings in the community. It has marginal insulation in the floors, walls and roof and it is proposed that the interior walls be furred and insulated in all back areas leaving the main room log faced.

C. Program Deficiency Narrative

The main program deficiencies are the lack of an adequate trauma room, a toilet room that is not accessible, and the lack of more than one exam space. The office and waiting areas are adequate, however, there is limited medical supplies storage space. Medical supplies are located in a room off the main waiting area and are not directly accessible from the exam room.

The following table illustrates a comparison between the current actual square footage (SF) and the 2000 s.f. minimum area recommended by the Alaska Rural Primary Care Facility study for a Medium Clinic:

Table 1 – ARPCF Clinic Area Comparison

Purpose/Activity	#	Existing Net SF	#	ARPCF Medium	Difference
Arctic Entry	1	-	2	2 @ 50=100	100
Wait/Recep/Closet	1	396	1	150	-246
Trauma/Telemed/Exam	1	170	1	200	30
Office/Exam	2	-	1	150	150
Admin./Records	2	170	1	110	-60
Pharmacy/Lab		130	1	80	-50
Portable X-ray		-		-	-
Spec. Clinic/Health Ed./Conf.		-	1	150	150
Patient Holding/Sleep Room		-	1	80	80
Storage	1	-	1	100	100
HC toilet	1	85	2	2 @ 60=120	35
Janitorial Closet		-	1	30	30
Total Net Area				1270	
Mechanical Room		0		147	147
Morgue/Ancillary	1	0		30	30

The Venetie Clinic has a current gross area of 1250 s.f. This would require a gross building area expansion of approximately 750 s.f. to meet the 2000 s.f. minimum ARPCF requirement for a Medium clinic.

An analysis of the existing building's program functions follows. Please also refer to the floor plan in Section H:

- **Arctic Entries:** None provided. Front entry has a short ramp to grade.
- **Waiting:** Nearly 30 % of the clinic is devoted to waiting area.
- **Trauma/Telemed/Exam:** The trauma/exam room measures 10' x 17'. The room would be more useful if the casework were placed along the interior wall.
- **Office/Exam:** None

- **Administration/Records:** only two health care workers use the large administrative work area. It seems adequate, however, more workspace could be provided by getting rid of the old office desks and installing modular work surfaces.
- **Pharmacy/Lab:** An entire room is devoted to medical supplies storage. It is not actually used as a lab; however, most of the reserve supplies are stored in this room.
- **Specialty Clinics:** Specialty clinics require the use of current exam space.
- **Patient Holding/Sleep:** None provided. Itinerants may use the sofa in the waiting room.
- **Storage:** See Pharmacy/Lab above.
- **HC Toilet Room:** Although the room is large enough for ADA access, the curbs put the toilet and sink out of the reach of the disabled.
- **Janitor Closet:** None provided.
- **Ancillary Spaces:** None. Storage cabinets are provided in one exit hall.

D. Architectural/Structural Condition

The existing building requires significant thermal upgrades, flooring refinishing, ramp construction, and window replacement. It would not be advisable to construct an addition to this building because of the unusual construction type and the difficulty in modifying or leveling the foundation. The log building frame would be best left structurally intact, improving the deficiencies as appropriate. A new clinic for this community would be the most prudent path, given the potential for future shifting of the existing building's foundation. A number of solutions were discussed with village leaders, including jacking up the building to check for floor joist rotting. There is not a simple method to raise the floor to get access to that area. Sections of the floor could be removed to get access for jacks, however, the building does not appear to have the stability to survive a move.

E. Site Considerations

A proposed site for a new clinic is located opposite the new water treatment building, and near the sewage treatment facility on the opposite side of the runway from the existing building. This location should be on the upwind side of a sewage lagoon, however, the effects should be investigated. A site in the proposed area would have more dependable utilities than most sites.

F. Mechanical Condition

Heating and Fuel Oil: The clinic is heated by two Monitor stoves, one located in the waiting area and one located in an exam room. This heating system is inadequate for heating the clinic uniformly since each unit provides only a single, highly variable zone of heating. The nature of this heating arrangement is such that rooms without the heaters where privacy or security is required will rapidly cool below the comfort zone and could also lead to freezing of plumbing and/or medications. A wood stove is also installed in the waiting area. It serves as back up in the event that the monitor stove fails. Fuel for the waiting area Monitor stove is stored in a 500-gallon fuel tank located adjacent to the building. Fuel for the exam room Monitor stove is stored in a 55-gallon drum located adjacent to the building. Both tanks are located too close to the building, are not properly supported, and their piping is not properly supported. The 55-gallon tank is not UL listed and needs to be replaced. The other tank needs to be relocated, resupported and repiped.

Ventilation: The building has no mechanical ventilation including no restroom exhaust. The only source of ventilation for the occupied spaces is though operable windows. The clinic needs to be provided with a mechanical ventilation system and should not rely on operable windows alone.

Plumbing: Cold water is provided to the clinic from the village water system, hot water is provided from an electric water heater. Sewer service is provided from a haul service. There is a sewer lift station behind the toilet that lifts the sewage to a holding tank behind the building. Plumbing fixtures in the clinic include a toilet, lavatory, and shower in the restroom, none meeting ADA requirements. There are also stainless steel sinks in the exam rooms. There was no mop sink in the clinic and water for house keeping is provided through a hose connection from the lavatory in the restroom. This is a code and health problem since the system is not protected with a vacuum breaker and cross contamination can occur.

G. Electrical Condition

Power: 120/240-volt, single-phase power is provided to the clinic's electrical meter through an overhead service. A 100-amp breaker is provided after the meter and a 100-amp panel is provided inside the building. The service is fed with copper conductors. The system appears to be grounded correctly to a grounding rod located below the meter. The electrical panel has 9 breakers installed with no spares but the panel has room for a maximum of 20 breakers. All wiring from the panel is copper run in EMT. The wiring is generally in fair condition. There is some Romex wiring installed after the panel. It is exposed and there are a few locations where there are wire nut splices installed without J-boxes. The number of receptacles in the office appears to be adequate. It was noted that a number of receptacles were recessed into the furred out wall space around the perimeter of the building. Receptacles in the restroom are not GFCI. There is a GFCI receptacle located on the exterior of the building near the electrical service entrance.

Lighting and Emergency Fixtures: Florescent fixtures provide interior lighting . Lighting levels are low throughout the building, especially in the office and exam areas. The lighting should all be replaced. Incandescent fixtures at both entrances to the clinic provide exterior lighting. The fixtures are in poor shape and should be replaced. Emergency lighting is provided in at the entrances and in the corridor of the clinic, but the batteries were dead. Emergency exit signs are not installed. The fire alarm system consists of battery-operated smoke detectors in the office area and waiting areas.

Telecommunications: The telecommunication system includes four phone lines serving the clinic. The clinic has Internet access, but does not have a Telemed system.

H. Existing Facility Floor Plan

See following sheet for the floor plan of the existing clinic.

J. Community Plan

Refer to the attached community plan for location of the existing clinic and the proposed location for the new clinic. If the existing clinic site is the preferred location or if a new site has not yet been selected, only the existing clinic location will be shown.

IV. DEFICIENCY EVALUATION AND COST ASSESSMENT

The attached deficiency reporting forms are based on Public Health Service form AK H SA-43. The forms are numbered sequentially for each discipline starting with **A01** for Architectural and structural deficiencies, **M01** for Mechanical deficiencies and **E01** for Electrical deficiencies.

A. Deficiency Codes

Deficiencies are further categorized according to the following PHS Deficiency codes to allow the work to be prioritized for federal funding, should that apply. Deficiency codes used in this survey include:

- 02 Fire and Life Safety:** These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated building codes including the International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code.
- 03 Safety:** These deficiencies identify miscellaneous safety issues.
- 04 Environmental Quality:** This addresses DEC regulations, hazardous materials and general sanitation.
- 05 Program Deficiencies:** These are deficiencies which show up as variations from space guidelines established in the Alaska Primary Care Facility Facility Needs Assessment Project and as further evaluated through observation at the facility site and documented in the facility floor plans.
- 07 Disability Access Deficiencies:** The items with this category listing are not in compliance with the Americans with Disabilities Act.
- 08 Energy Management:** These deficiencies address the efficiency of heating systems/fuel types and the thermal enclosures of buildings.
- 11 Structural Deficiencies:** These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.
- 12 Mechanical Deficiencies:** These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems.
- 13 Electrical Deficiencies:** These are deficiencies with electrical generating and distribution systems, fire alarm systems and communications systems.
- 14 Utilities:** This category is used for site utilities, as opposed to those within the building and may include sewer lines and water and power distribution.

B. Photographs

Each sheet has space for a photograph. Some deficiencies do not have photos. Photographs do not cover all areas where the deficiencies occur but are intended to provide a visual reference to persons viewing the report who are not familiar with the facility. Additional photographs of the clinic and the surrounding area are included in Appendix B.

C. Cost Estimate General Provisions

New Clinic Construction

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**

Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

Remodel, Renovations, and Additions

- **Base Cost**

The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

Similar to new clinics, the following project factors have been included in Section VI of this report.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. SUMMARY OF EXISTING CLINIC DEFICIENCIES

The attached table summarizes the deficiencies at the clinic and provides a cost estimate to accomplish the proposed modifications. If all deficiencies were to be addressed in a single construction project there would be cost savings that are not reflected in this tabulation. The total cost of remodel/addition shown in Section VI is intended to show an overall remodel cost that reflects this economy. Refer to Section VI for a comparison of remodel/addition costs to the cost of new construction. The specific deficiency sheets are included in Appendix A.

VI. NEW CLINIC ANALYSIS

The decision on whether to fund new clinic construction or a remodel/addition of the existing clinic is to be determined by comparing the cost of a new facility designed to meet the program requirements of the Alaska Rural Primary Care Facilities minimum area requirements with the projected combined cost of renovating, remodeling and adding onto the existing building to provide an equivalent facility. If the cost of the remodel/addition project is greater than 75% of the cost of constructing an altogether new facility then a new facility is recommended. That ratio is computed as follows:

- **The cost of a new clinic in Venetie is projected to be:**

Base Anchorage Cost per s.f.	\$183/ s.f.
Medical Equipment Costs @ 17%	\$31
Design Services 10%	\$18
Construction Contingency 10%	\$18
Construction Administration. 8%	\$15
Sub-total	\$265/ s.f.
Area Cost Factor for Venetie 1.63*	
Adjusted Cost per s.f.	\$433/ s.f.

Total Project Cost of NEW BUILDING 2,000 x \$433 = \$866,000

- **The cost of a Remodel/Renovation/Addition is projected to be:**

Projected cost of code/condition renovations (From the deficiency summary):	
90% of cost of code/condition improvement**	\$382,824 Renovation
Projected cost of remodeling work (See A13)	
1,250 s.f. clinic @ 50% remodel = 625 s.f.	\$82,475 Remodel
Projected cost of building addition (See A14)	
2,000 s.f. – 1,250 s.f. = 750 s.f.	\$367,166 Addition
 Design 10%, Const. Contingency 10%, Const. Admin. 8%	\$233,090

Total Project Cost of REMODEL ADDITION \$1,065,555

- **Ratio of remodel:new is \$1,065,555 : \$866,000 = 1.23X**

The cost of a remodel/addition for this clinic would cost 123% the cost of a new clinic, therefore, a new clinic is recommended for this community.

* The Area Cost Factor was refined by Estimations, Inc. in July 2001 based on information obtained during the site visit.

** The 90% factor represents economy of scale by completing all renovation work in the same project.

Appendix A: SPECIFIC DEFICIENCIES LISTING

Refer to the attached sheets for the listing of the individual deficiencies and the corrective action recommended.

Appendix B: GENERAL SITE PHOTOGRAPHS

The following sheets provide additional photographic documentation of the existing building and surroundings.

Appendix C: ADCED Community Profile

Refer to the attached document prepared by Alaska Department of Community and Economic Development profiling the community of Venetie.

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